

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 25, 2008 has been entered.

Response to Amendment

Amendment filed on August 25, 2008 has been entered. Claims 1, 3, 6-11 are pending in the application. Claim 9 is withdrawn from consideration as directed to a non-elected invention.

Claim Objections

1. Objection to claim 8 because of the informalities has been withdrawn due to amendment.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Rejection of claims 1, 3, 6-8, 10, 11 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement has been withdrawn due to amendment.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3, 6-8, and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blatter et al (WO 99/41323) in view of Nickerson (US 3,860,506), further in view of Dalton (US 3,263,604).

The Examiner Note: instead of WO 99/41323 in German, the Examiner cited US 6,406,757 of the same patent family.

Blatter et al discloses a process for application of powder coatings to metallic or non-metallic surfaces comprising *electrostatically* depositing a powder coating composition (See column 4, lines 59-60) to temperature-sensitive non-metallic substrates such as *wood* (claimed non-conductive surface) (See column 5, lines 30-31), and melting and curing an applied coating with NIR (See Abstract; column 5, lines 21-36) at frequencies of 750-1200 nm (See column 5, lines 1-4) using NIR source, e.g. high power halogen lamp which may achieve light source temperatures of 3500 K (See column 5, lines 6-9). It is advantageous to perform the melting and curing of the powder coating composition in a period of **1 to 30 seconds**, using high-energy NIR radiation at a power of greater than 1 Watt/cm², relative to the irradiated area, preferably of more than 10 Watt/ cm² (See column 5, lines 10-15).

Blatter et al fails to teach that a material selected from the group consisting of carbon, magnetite, iron oxide, iron oxide black, tin oxide and antimony oxide (Claim 1) or carbon (Claim 3), which material absorbs high-energy radiation within a wavelength in the range of 250 to 2,500 nm (Claim 1), is applied to the *wood*-based substrate before applying a powder coating composition, which is melted and cured with NIR (Claim 1).

Nickerson teaches that to permit electrocoating on a nonconductive body (See column 1, lines 3-5), the nonconductive body must be treated to serve as an electrode. This may be accomplished by applying an electrically conductive continuous film to the nonconductive body. See column 1, lines 42-48. The electrically non-conductive bodies may be coated with any particulate conductive material, e.g. graphite, powdered metal, etc., which may remain as an intermediate coating, to provide a superior conductive base for electrocoating non-conductive bodies by electrostatic deposition (See column 4, lines 23-33) of finely divided plastic materials (powder coating) (See column 4, lines 40-42). The conductive film must be uniform and of *very minimum thickness*, e.g. of 0.5-2 microns (claimed thickness of material) (See column 7, lines 61-63) while maintaining continuity of conductivity over the entire substrate to permit uniform electrocoating thereon (See column 3, lines 32-36). The process is particularly suited for coating nonconductive bodies having a porous or textured surface which promotes adhesion of a uniform film of graphite (See column 3, lines 10-14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have coated a nonconductive body such as wood substrate in Blatter et al with any particulate conductive material of e.g. 0.5-2 microns before applying the powder coating composition with the expectation of providing the desired superior conductive base for electrostatic deposition on non-conductive wood based substrates, as taught by Nickerson.

Nickerson fails to teach that carbon may be used as a particulate conductive material.

Dalton teaches that a powdered conducting material such as powdered metal, *carbon* black or graphite can be used for *coating* non-conductive material such as paper (See column 3, lines 18-19) to render the non-conductive material electrically conductive (See column 3, lines 11-16; column 4, lines 24-25).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used carbon black in Blatter et al in view of Nickerson instead of powdered metal or graphite with the expectation of providing a non-conductive material with the desired electrical conductivity since Dalton teaches that carbon black is suitable for coating a non-conductive material in order to render the non-conductive material electrically conductive, and Nickerson teaches that coating of *any* particulate conductive material, e.g. graphite or powdered metal, may be used to provide a superior conductive base for electrocoating a non-conductive bodies.

The Examiner takes official notice that carbon *inherently* absorbs high-energy radiation within a wavelength in the range of 250 to 2,500 nm, as required by claim 1.

As to claim 6, note that claimed range of 0.5-1 microns overlap Nickerson's range of 0.5-2 microns. It is well settled that overlapping ranges are prima facie evidence of obviousness. It would have been obvious to one having ordinary skill in the art to have selected the portion of Nickerson's range that corresponds to the claimed range.

As to claim 11, the limitations of claim 11 are not addressed because they are directed to a non-elected substrate.

Response to Arguments

6. Applicant's arguments with respect to claims 1, 3, 6-8, 10 and 11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy Lightfoot whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Friday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Art Unit 1792

October 23, 2008

/Elena Tsoy Lightfoot/